TECHNICAL BASIS FOR TIER I OPERATING PERMIT

DATE: December 6, 2002

Stephen Coe **PERMIT WRITER:**

Bill Rogers PERMIT COORDINATOR:

AIRS Facility No. 011-00012, Basic American Foods, Blackfoot Final Tier I Operating Permit SUBJECT:

Permittee:	Basic American Foods - Blackfoot
Permit Number:	011-00012
Air Quality Control Region:	61
AIRS Facility Classification:	Α
Standard Industrial Classification:	2034
Zone:	12
UTM Coordinates:	387.7, 4784.0
Facility Mailing Address:	415 W. Collins Road, Blackfoot, ID 83221
County:	Bingham
Facility Contact Name and Title:	Deloris Aguilar, Environmental Superintendent
Contact Name Phone Number:	(208) 785-8590
Responsible Official Name and Title:	Lloyd Rockwood, Plant Manager
Exact plant Location:	415 W. Collins Road, Blackfoot Idaho 83211
General Nature of Business & Kinds of Products:	Potato processing

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LIST OF ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

ACFM actual cubic feet per minute
AFS AIRS Facility Subsystem

AIRS Aerometric Information Retrieval System

AQCR Air Quality Control Region
BAF Basic American Foods

CFR Code of Federal Regulations

CO carbon monoxide

DEQ Department of Environmental Quality

dscf dry standard cubic feet

EPA U.S. Environmental Protection Agency

gpm gallons per minute

gr grain (1 lb = 7,000 grains)
HAPs hazardous air pollutants

hr/yr hours per year

IDAPA a numbering designation for all administrative rules in Idaho promulgated under the

Idaho Administrative Procedures Act

km kilometer

lb/hr pound per hour

MMBtu/hr million British thermal units per hour

NESHAP Nation Emission Standards for Hazardous Air Pollutants

NO_x nitrogen oxides

NSPS New Source Performance Standards

PM particulate matter

PM₁₀ particulate matter with an aerodynamic diameter of 10 micrometers or less

ppm parts per million

PSD Prevention of Significant Deterioration

PTC permit to construct
PW process weight
scf standard cubic feet

SIC Standard Industrial Classification

SIP State Implementation Plan

SO₂ sulfur dioxide T/yr tons per year

UTM Universal Transverse Mercator
VOC volatile organic compound

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PUBLIC COMMENT/AFFECTED STATES/EPA REVIEW SUMMARY

A 30-day public comment period for BAF's Blackfoot facility draft Tier I operating permit was held as required by IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho*. The public comment period ran from October 4 through November 4, 2002. No comments were received from any entity.

IDAPA 58.01.01.008.01, defines affected states as: "All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within fifty (50) miles of the Tier I source."

A review of the site location information included in the permit application indicates that the facility is not located with 50 miles of a state border.

A proposed permit was developed and was forwarded to the EPA for their review as required by IDAPA 58.01.01.366. The EPA provided no written objection to the permit.

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this facility draft Tier I operating permit in accordance with IDAPA 58.01.01.362.

The DEQ has reviewed the information provided by BAF regarding the operation of their Blackfoot facility. This information was submitted based on the requirements to submit a Tier I operating permit in accordance with IDAPA 58.01.01.300.

2. SUMMARY OF EVENTS

- PTC letter December 24, 1975
- PTC letter November 12, 1982
- PTC 011-000012 April 27, 1995

On June 21, 2001, DEQ received the Tier I operating permit application from BAF for their Blackfoot facility. The application was prepared by Kennedy /Jenks Consultants, the facility's consulting firm. On January 30, 2002, the permit application was determined complete. BAF is currently not in compliance with some emissions sources identified as Process C because the facility failed to obtain a PTC prior to construction or modification. Through mutual agreement, the DEQ and BAF have determined a facility-wide Tier II operating permit is required to address the noncompliance issues. The Compliance Schedule in the Tier I operating permit establishes the requirements for the facility-wide permit. BAF is in the process of installing an advanced wastewater treatment facility to reduce loading within its land-applied wastewater. There will be no significant air emissions from this new treatment facility.

A public comment period on the draft Tier I operating permit was provided from October 4 through November 4, 2002. No comments were received from any entity. A proposed permit was developed and forwarded to EPA for their review as required by IDAPA 58.01.01.366. The EPA provided no written objection to the permit.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- Tier I operating permit application, received June 21, 2001.
- IDAPA, 58.01.01- Rules for the Control of Air Pollution in Idaho.
- Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, EPA
- Guidance developed by the EPA and DEQ.

4. FACILITY DESCRIPTION

The Basic American Foods facility dehydrates vegetables.

4.1 GENERAL PROCESS DESCRIPTION

The BAF Blackfoot facility has several operations, including:

- fresh whole potato purchasing and marketing ("Fresh Pack")
- · dehydrated potato granules
- formulated dehydrated potato products
- · dehydrated whole and piece food products
- animal feed

Fresh whole potato purchasing and marketing ("Fresh Pack")

The BAF Blackfoot facility's fresh-pack operations include buying, grading, and selling whole fresh potatoes. Potatoes that are not sold as fresh-pack potatoes are used in other areas within the facility to produce dehydrated potato products and animal feed.

Dehydrated potato granules

Dehydrated potato granules are individual potato cells prepared by cooking and then drying raw potatoes.

Formulated dehydrated potato products

Formulated dehydrated potato products are prepared from various combinations of granules, cooked potatoes, and food additives.

Dehydrated whole and piece food products

The Blackfoot facility prepares dehydrated whole and piece-food products by dehydrating cooked or blanched vegetables.

Animal feed

Animal feed, consisting of food fractions and off-specification materials that are not suitable for use in other products, is produced as a byproduct of other facility processes.

Production processes

To produce these products, raw food materials are washed and most are peeled. The products then undergo drying to remove any moisture.

The Blackfoot facility uses a variety of drying and dehydration processes

Materials Transport

Materials transport occurs both internally within a processing activity and externally to transfer materials between processes, to place them into or take them out of bulk storage, or to transport them to packaging and loadout activities.

Shipping and Receiving

Raw materials are received onsite by truck. Granules are received by rail or truck. All shipments leaving the facility are sent by truck.

Fuel Usage

Natural gas is the primary fuel used at the facility. Dryers include both gas-fired and steam-heated units. Natural gas is used to heat the facility, and is the primary fuel used for steam production. Fuel oil is available for backup boiler firing. In accordance with BAF's PTC No. 011-00012 (4/27/95) distillate fuel oil can be used a maximum of 1,440 hr/yr in boiler No.'s 6, 7, and 8.

4.2 FACILITY CLASSIFICATION

The facility is classified as a major facility, in accordance with IDAPA 58.01.01.008.10, for Tier I permitting purposes because the facility emits or has the potential to emit a regulated air pollutant in amounts greater than or equal to 100 T/yr. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The facility is not currently subject to PSD permitting requirements because the facility does not emit or have the

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potential to emit a regulated air pollutant in amounts greater than or equal to 250 T/yr. The facility is subject to federal NSPS requirements in accordance with 40 CFR 60, Subpart Dc, but it is not subject to state and federal NESHAP or MACT regulations. The SIC defining the facility is 2034, and the AIRS facility classification is A.

At the time of permit application submittal, the facility has the potential to emit the following pollutants:

CO 141.3 T/yr
 NO_x 104.1 T/yr
 PM₁₀ 132.0 T/yr

4.3 AREA CLASSIFICATION

The facility is located in Bingham County and within AQCR 61. This area is designated unclassifiable for all regulated criteria air pollutants. There are no Class I areas within 10 km of the facility.

4.4 PERMITTING HISTORY

Permit to Construct No. 011-00012 for the boilers was issued on November 12, 1982 and amended on April 27, 1995. No other permits have been issued to the facility.

5. REGULATORY ANALYSIS

5.1 FACILITY-WIDE APPLICABLE REQUIREMENTS

5.1.1 Fugitive Particulate Matter - IDAPA 58.01.01.650-651, 5/1/94

5.1.1.1 Requirement

Permit Condition 2.1 states that all reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

5.1.1.2 Compliance Demonstration

Permit Condition 2.2 states that the permittee is required to monitor and maintain records of the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions, which include using water or chemicals, applying dust suppressants, using control equipment, covering trucks, paving roads or parking areas, and removing materials from streets.

Permit Condition 2.3 requires that the permittee maintain a record of all fugitive dust complaints received. In addition, the permittee is required to take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The permittee is also required to maintain records that include the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive PM emissions whether or not a complaint is received, Permit Condition 2.4 requires that the permittee conduct periodic inspections of the facility. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain records of the results of each fugitive emissions inspection.

Both Permit Conditions 2.3 and 2.4 require the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of receiving a valid

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complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.2 Control of Odors - IDAPA 58.01.01.775-776, 5/1/94

5.1.2.1 Requirement

Permit Condition 2.5 and IDAPA 58.01.01.776 both state that: "No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution." This condition is currently considered federally enforceable until such time it is removed from the SIP, at which time it will be a state-only enforceable requirement.

5.1.2.2 Compliance Demonstration

Permit Condition 2.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Permit Condition 2.6 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.3 Visible Emissions - IDAPA 58.01.01.625, 4/5/00

5.1.3.1 Requirement

IDAPA 58.01.01.625 and Permit Condition 2.7 state that "(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined . . ." by IDAPA 58.01.01.625. This provision does not apply when the presence of uncombined water, NO_x , or chlorine gas is the only reason(s) for the failure of the emission to comply with the requirements of this rule.

5.1.3.2 Compliance Demonstration

To assure reasonable compliance with IDAPA 58.01.01.625, Permit Condition 2.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions during daylight hours and under normal operating conditions. The inspection consists of a visible observation of each potential source of visible emissions. If any visible emissions are present from any point of emission covered by this section, the permittee must either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of thirty observations shall be recorded when conducting the opacity test. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. The permittee is also required to maintain records of the results of each visible emissions inspection and each opacity test when conducted. These records must include the date of each inspection, a description of the permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

It should be noted that if a specific emissions unit has a specific compliance demonstration method for visible emissions that differs from Permit Condition 2.8, then the specific compliance demonstration method

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overrides the requirement of Permit Condition 2.8. This condition applies to small sources that would generally not have any visible emissions.

Permit Condition 2.8 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ believes that taking corrective action within 24 hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.1.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown-IDAPA58.01.01.130, 4/5/00

5.1.4.1 Requirement

Permit Condition 2.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns. This section is fairly self-explanatory and no additional detail is necessary in this technical analysis. However, note that subsections 133.02, 133.03, 134.04, and 134.05 are not specifically included in the permit as applicable requirements. These provisions only apply if the permittee anticipates requesting consideration under subsection 131.02, allowing DEQ to determine if an enforcement action with imposed penalties is warranted. Section 131.01 states "... The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05."

Failure to prepare or file procedures pursuant to sections 133.02 and 134.04 is not a violation of the Rules in and of itself, as stated in subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option, but is not compelled, to follow the procedures in subsections 133.02, 133.03, 134.04, and 134.05, the subsections are not considered applicable requirements for the purpose of this permit.

5.1.4.2 Compliance Demonstration

The compliance demonstration is contained within the text of Permit Condition 2.9. No further clarification is necessary here.

5.1.5 Excess Emissions - IDAPA 58.01.01.131, 4/5/00

The only emissions unit that has experienced excess emissions due to startup, shutdown, or scheduled maintenance is emissions unit-CIR in process P6. This emissions unit occasionally shows granule losses from the drying bed during start-up. The facility is currently evaluating modifications to the startup procedure with the intent of preventing these startup losses.

5.1.5.1 Requirement

The owner or operator of a facility or emissions unit generating excess emissions shall comply with sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable.

If the owner or operator anticipates requesting consideration under subsection 131.02, then the owner or operator shall also comply with the applicable provisions of subsections 133.02, 133.03, 134.04, and 134.05.

5.1.6 Open Burning - IDAPA 58.01.01.600, 3/19/99

The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, "Rules for Control of Open Burning."

5.1.7 Renovation/Demolition - 40 CFR 61, Subpart M

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

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5.1.8 Fuel-burning Equipment - IDAPA 58.01.01.676, 5/1/94

5.1.8.1 The following fuel-burning equipment grain-loading standards apply:

For fuel-burning equipment commencing operation on or after October 1, 1979, with a rated input of 10 MMBtu/hr or more, the permittee shall not discharge to the atmosphere PM in excess of the amounts listed in Table 5.1. The effluent gas volume must be corrected to the respective oxygen concentration listed.

Table 5.1 Fuel-burning Burning Equipment PM Emission Limits

Allowable Particulate Emissions				
Fuel Type	gr/dscf	Охудел		
Gas	0.015	3%		
Liquid	0.050	3%		
Coal	0.050	8%		
Wood Product	0.080	8%		

5.1.9 Chemical Accident Prevention Provisions - 40 CFR 68

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed, per 40 CFR 68.130.
- The date on which a regulated substance is first present above a threshold quantity in a process.

5.1.10 Fuel-Sulfur Content - IDAPA 58.01.01.728, 5/1/94

No person shall sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:

- ASTM Grade 1 fuel oil 0.3% sulfur by weight.
- ASTM Grade 2 fuel oil 0.5% sulfur by weight.

5.1.10.1 Compliance Demonstration

The permittee shall maintain supplier verification documentation detailing distillate fuel oil content on an asreceived basis.

5.1.11 Test Methods - IDAPA 58.01.01.157, 4/5/00

The test method(s) for each emissions limit is listed in the permit in accordance with the EPA's comments:

"Test methods and Averaging Times: The specific reference test method and averaging times for each emission limit must be identified in the permit. A reference test method must be identified even if no source-testing requirement is imposed by the permit. Please note that, although we are aware that the State rules have recently been revised to include averaging items and test methods for most emission limits, the revised version of the Rules will not have been approved into the SIP at the time of issuance of the first permits."

If this permit requires any testing, it shall be conducted in accordance with the procedures in IDAPA 58.01.01.157 and the test methods listed in Permit Condition 2.15, or an alternative test method approved by the DEQ.

5.2 PROCESS DESCRIPTION AND OPERATIONS

5.2.1 Boilers

Three boilers provide process steam for the Blackfoot facility. Natural gas is the primary fuel for the boilers, distillate fuel oil the secondary fuel. When combusting natural gas, each boiler is allowed to operate up to 8,568 hr/yr. When combusting distillate fuel oil, each boiler is allowed to operate up to 60 days/yr or 1,440 hr/yr. There are no alternate operating scenarios

The boilers are potential sources of NO_x, PM, SO₂, VOC, and CO. Minimal amounts of HAP's and lead are emitted in the combustion process.

The boilers are operated pursuant to PTC No. 011-00012. PTC No. 011-00012 was issued November 4, 1994 for the construction of boiler No. 6 and the simultaneous change in backup fuel from residual fuel oil to distillate fuel oil. Boiler 6 is subject to NSPS requirements in accordance with 40 CFR 60, Subpart Dc because it was constructed after June 9, 1989 and has a heat input greater than 10 MMBtu/hr but less than 100 MMBtu/hr. Boiler 7 was constructed installed in 1975; the state of Idaho issued a letter granting construction on December 24, 1975. Boiler 8 was constructed in 1982; the state of Idaho issued PTC No. 011-00012 November 12, 1982 for its construction.

The following table summarizes the heat input, allowable steam production rate, and allowable operating hours for each boiler.

Table 5.2 Emissions Units

Emissions Unit Identification Code	Description of Unit		
Boiler 6	Boiler 6 is a Johnston "509" Series, with a rated heat input of 75.4 MMBtu/hr, and a maximum steam rate allowed by the permit of 62,100 lb/hr. The maximum permitted hours of operation at rated steam capacity is 8,568 hr/yr.		
Boiler 7	Boiler 7 is a Springfield Model 52, with a rated heat input of 39 MMBtu/hr, and a maximum steam rate allowed by the permit of 30,000 lb/hr. The maximum permitted hours of operation at rated steam capacity is 8,568 hr/yr.		
Boiler 8	Boiler 8 is a Murray (unknown model) with a rated heat input of 57 MMBtu/hr, and a maximum steam rate allowed by the permit of 45,500 lb/hr. The maximum permitted hours of operation at rated steam capacity is 8,568 hr/yr.		

Permit to Construct No. 011-00012 limits emissions to the rates listed in the following table when combusting distillate fuel oil. No federally enforceable limits apply for natural gas combustion.

Table 5.3 Distillate Fuel Oil Potential to Emit

SOURCE	F	M.	PI	V10	S	02	N	OX	V	C	C	0
DESCRIPTION	lb/hr	T/yr										
Boiler No. 6	1.1	1,5	0.55	0.75	3.7	2.8	4.0	12.8	0.4	1.3	5.1	21.7
Boiler No. 7	0.6	8.0	0.4	0.4	1.9	1.5	5.4	23.0	0.2	1.0	1.8	7.5
Boiler No. 8	0.8	1.2	0.6	0.6	2.7	2.1	7.6	32.6	0.3	1.3	2.1	8.8

5.2.2 Process Fresh Pack

5.2.2.1 Process Description and Operations

Process Fresh Pack is a wholesale potato buying and marketing enterprise. Whole fresh potatoes are received, sorted and graded, and shipped to buyers. Potatoes that are not sold as fresh potatoes are either used in BAF's potato dehydrating operations or sold as animal feed.

5.2.2.2 Emissions Units

At the time of this permitting action, Process Fresh Pack does not have any emissions units that have the potential to emit a regulated air pollutant or pollutants in amounts greater than or equal to a significant emissions rates defined by IDAPA 58.01.01.006.92.

5.2.3 Process A

5.2.3.1 Process Description and Operations

Process A was constructed in the early 1960s. This process produces dehydrated potato granules. Raw material inputs to the process include cooked potatoes and food additives (including sulfites). Process A can operate up to 8,760 hr/yr. There are no alternate operating scenarios.

Drying heat is provided by natural gas combustion and steam produced by the plant boilers.

Emissions units included in Process A include process vents from process equipment. All emissions units associated with this process are potential sources of particulates. The equipment that combust natural gas are potential sources of NO_x , CO, and VOC. The processes can potentially emit SO_2 from the decomposition of sulfites. Minimal amounts of hazardous air pollutants and lead associated with natural gas combustion are emitted from this process.

The following table lists the emissions units that have the potential to emit a regulated air pollutant or pollutants in amounts greater than or equal to the significant emission rates defined by IDAPA 58.01.01.006.92:

Table 5.3 Process A Emissions Units

Emissions Unit Identification Code	Description of Unit
DHQ	DHQ is a vent from process equipment.
DHT	DHT is a vent from process equipment.
DHU	DHU is a vent from process equipment.
DHZ	DHZ is a vent from process equipment.

5.2.3.2 Process Weight PM Emissions Limitations

Process A is subject to the process weight PM emissions limitations in accordance with IDAPA 58.01.01.702. This regulation states: No person shall emit into the atmosphere from any process or process equipment operating prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 17,000 lb/hr.

 $E = 0.045 \text{ lb/hr (PW)}^{0.60}$

b. If PW is equal to or greater than 17,000 lb/hr.

 $E = 1.12 \text{ lb/hr (PW)}^{0.27}$

Exemptions -- The provisions of section 702 shall not apply to fuel-burning equipment, or equipment used exclusively to dehydrate sugar beet pulp or alfalfa.

5.2.3.3 Compliance Demonstration

As shown in the appendix, Process A will not exceed the process weight PM emissions limitations at maximum input rate. However, to assure reasonable compliance with the applicable requirement, Permit Condition 4.3 requires the following:

"... the permittee shall conduct a monthly one-minute observation of each affected emissions point, or source, using EPA Method 22 (in 40 CFR 60, Appendix A). If visible emissions in excess of 10% opacity are observed from any emissions point or source, a six-minute observation, using EPA Method 9, shall be conducted. The visible emissions evaluations shall be performed during daylight hours under normal operating conditions. The results of each evaluation shall be recorded and shall be maintained in accordance with Permit Condition 2.11."

5.2.4 Process B

5.2.4.1 Process Description and Operations

Process B was constructed in the early 1960s. This process produces dehydrated potato granules. Raw material inputs to the process include cooked potatoes and food additives (including sulfites). Process B can operate up to 8,760 hr/yr. There are no alternate operating scenarios.

Drying heat is provided by natural gas combustion and steam produced by the plant boilers.

Emissions units included in Process B include process vents from process equipment. All emissions units associated with this process are potential sources of PM. The process equipment that combust natural gas are potential sources of NO_x , CO, and VOC. The process equipment can potentially emit SO_2 from the decomposition of sulfites. Minimal amounts of hazardous air pollutants and lead associated with natural gas combustion are emitted from this process.

The following table lists the emissions units that have the potential to emit a regulated air pollutant or pollutants in amounts greater than or equal to the significant emission rates defined by IDAPA 58.01.01.006.92:

Table 5.4 Process B Emissions Units

Emissions Unit Identification Code	Description of Unit
DUQ	DUQ is a vent from process equipment.
DUT	DUT is a vent from process equipment.
DUV	DUV is a vent from process equipment.
DQA	DQA is a vent from process equipment.
DQB	DQB is a vent from process equipment.

5.2.4.2 Process Weight PM Emissions Limitations

Process B is subject to the process weight PM emissions limitations in accordance with IDAPA 58.01.01.702. This regulation states: No person shall emit into the atmosphere from any process or process equipment operating prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 17,000 lb/hr,

 $E = 0.045 \text{ lb/hr (PW)}^{0.60}$

b. If PW is equal to or greater than 17,000 lb/hr.

 $E = 1.12 \text{ lb/hr (PW)}^{0.27}$

Exemptions -- The provisions of section 702 shall not apply to fuel-burning equipment, or equipment used exclusively to dehydrate sugar beet pulp or alfalfa.

5.2.4.3 Compliance Demonstration

As shown in the appendix, Process B will not exceed the process weight PM emissions limitations at maximum input rate. However, to assure reasonable compliance with the applicable requirement, Permit Condition 5.3 requires the following:

"... the permittee shall conduct a monthly one-minute observation of each affected emissions point, or source, using EPA Method 22 (in 40 CFR 60, Appendix A). If visible emissions in excess of 10% opacity are observed from any emissions point or source, a six-minute observation, using EPA Method 9, shall be conducted. The visible emissions evaluations shall be performed during daylight hours under normal operating conditions. The results of each evaluation shall be recorded and shall be maintained in accordance with Permit Condition 2.11."

5.2.5 Process C

5,2.5.1 Process Description and Operations

Process C was constructed in 1961 and later modified in 1966, 1967, 1971, and 1977. This process produces formulated dehydrated potato products. Raw material inputs to the process include cooked potatoes, potato granules, and food additives (including sulfites). Drying heat is provided by steam produced by the plant boilers. Process C can operate up to 8,760 hr/yr. There are no alternate operating scenarios.

Emissions included in Process C include process vents from process equipment. All emissions units associated with this process are potential sources of PM. The drying unit processes can potentially emit SO₂ from the decomposition of sulfites. No hazardous air pollutants are associated with this process.

The following table lists the emissions units that have the potential to emit a regulated air pollutant or pollutants in amounts greater than or equal to the significant emission rates defined by IDAPA 58.01.01.006.92:

Table	5.5	Emissic	ons Units
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Emissions Unit Identification Code	Description of Unit
CIR	CIR is a vent from process equipment.
CXX	CXX is a vent for process equipment
CYY	CYY is a vent for process equipment.
CHX	CHX is a vent for process equipment.
CHY	CHY is a vent for process equipment.
HE8	HEB is a vent for process equipment.
CTU	CTU is a vent for process equipment.
TCD	TCD is a vent for process equipment.
TCO	TCO is a vent for process equipment.

Process C is subject to the process weight PM emissions limitations in accordance with IDAPA 58.01.01.701. This regulation states: No person shall emit into the atmosphere from any process or process equipment operating on or after October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 9,250 lb/hr.

 $E = 0.045 \text{ lb/hr (PW)}^{0.60}$

b. If PW is equal to or greater than 9,250 lb/hr,

 $E = 1.10 \text{ lb/hr } (PW)^{0.25}$

Exemption - The provisions of section 701 shall not apply to fuel-burning equipment.

5.2.8.3 Compliance Demonstration

As shown in the appendix, Process C will not exceed the process weight PM emissions limitations at maximum input rate. However, to assure reasonable compliance with the applicable requirement, Permit Condition 6.3 requires the following:

"... the permittee shall conduct a monthly one-minute observation of each affected emissions point, or source, using EPA Method 22 (in 40 CFR 60, Appendix A). If visible emissions in excess of 10% opacity are observed from any emissions point or source, a six-minute observation, using EPA Method 9, shall be conducted. The visible emissions evaluations shall be performed during daylight hours under normal operating conditions. The results of each evaluation shall be recorded and shall be maintained in accordance with Permit Condition 2.11."

6. INSIGNIFICANT ACTIVITIES

Listed below are the insignificant activities described by the source in accordance with IDAPA 58.01.01.317:

Table 6.1 Insignificant Activities

Description	Insignificant Activities Section Citation		
Operation, loading, and unloading of storage tanks and storage vessels, with lids or other appropriate closures and less than 260-gallon capacity, heated only to the minimum extent necessary to avoid solidification.	IDAPA 58.01.01.317.01.B(1)		
Operation, loading, and unloading of storage tanks not greater than 1,100 gallon capacity with lids, not containing hazardous air pollutants, and with maximum vapor pressure of 550 mmHg.	IDAPA 58.01.01.317.01.B(2)		
Operation, loading, and unloading of volatile organic compound storage tanks, 10,000 gallon capacity or less, with lids or other appropriate closure and vapor pressure not greater than 80 mmHg at 21°C.	IDAPA 58.01.01.317.01.B(3)		
Operation, loading, unloading, and storage of butane, propane, or liquefied petroleum gas in storage tanks or vessels with less than 40,000 gallon capacity.	IDAPA 58.01.01.317.01.B(4)		
Operation, loading, and unloading of gasoline storage tanks, 10,000 gallon capacity or less, with lids or other appropriate closure.	IDAPA 58.01.01.317.01.B(3)		
Combustion sources, less than 5 MMBtu/hr, exclusively using natural gas, butane, propane, and/or liquefied petroleum gas.	IDAPA 58.01.01.317.01.B(5)		
Welding using not more than one ton of rod per day.	IDAPA 58.01.01.317.01.B(9)		
"Parylene" coaters using less than 500 gallons of coating per year.	IDAPA 58.01.01.317.01.B(11)		
Printing and silk-screening, using less than 2 gallons per day of a combination of inks, coatings, adhesives, fountain solutions, thinners, retarders, or nonaqueous cleaning solutions.	IDAPA 58.01.01.317.01.B(12)		
Water cooling towers, not using chromium-based corrosion inhibitors, not using barometric jets or condensers, not greater than 10,000 gallons per minute, and not in direct contact with gaseous or liquid process streams containing regulated air pollutants.	IDAPA 58.01.01.317.01.B(13)		
Industrial water chlorination, less than 20 Million Gallons per day capacity.	IDAPA 58.01.01.317.01.B(16)		
Surface coating, using less than 2 gallons per day.	IDAPA 58.01.01.317.01.B(17)		
Space heaters and hot water heaters using natural gas, propane or kerosene, and generating less than 5 MMBtu/hr.	IDAPA 58.01.01.317.01.B(5)		
Tanks, vessels and pumping equipment, with lids or other appropriate closure, for storage or dispensing of aqueous solutions of inorganic salts, bases and acids.	IDAPA 58.01.01.317.01.B(19)		

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Description	Insignificant Activities Section Citation
Excluding solutions with 99% or greater sulfuric or phosphoric acid; 77% or greater nitric acid; 30% or greater hydrochloric acid; or more than one liquid phase where the top phase is more than 1% VOC.	
Equipment, with lids or other appropriate closure, used exclusively to pump, load, unload, or store high-boiling-point organic material, with an initial boiling point not less than 150°C or vapor pressure not more than 5 mm Hg at 21°C.	IDAPA 58.01.01.317.01.B(20)
Milling and grinding activities (paste forms, if used, are less than 1% VOC).	IDAPA 58.01.01.317.01.B(22)
Rolling, forging, drawing, stamping, shearing, and spinning metals.	IDAPA 58.01.01.317.01.B(23)
Dip-coating operations using materials with less than 1% VOC.	IDAPA 58.01.01.317.01.B(24)
Surface coating, aqueous solution, or suspension containing less than 1% VOC.	IDAPA 58.01.01.317.01.B(25)
Process A - DKW (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process A - DKV (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DXS (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DUO (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DPY (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DPZ (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DUY (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DUZ (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DSO (vent from Process Equipment)	IDAPA 58.01,01,317.01.B(30)
Process B- DSK (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DUU (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process B- DRY (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALB (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALQ (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALT (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALY (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALX (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALV (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - ALW (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - AEV (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - AEW (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - CHV (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - IBE (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C - CHZ (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- HNL (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CNV (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CNW (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CBB (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CTQ (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)

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Description	Insignificant Activities Section Citation
Process C- CTR (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CTS (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CTT (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- TAC (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- TAH (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- TEM (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- ENV (vent from Process Equipment)	IDAPA 58.01,01.317.01.B(30)
Process C- EUW (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- ENR (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- EDO (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- DSX (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- EGS (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- EGT (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- FIF (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CHK (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)
Process C- CHI (vent from Process Equipment)	IDAPA 58.01.01.317.01.B(30)

7. ALTERNATIVE OPERATING SCENARIOS

No alternative operating scenarios were identified in the permit application, nor requested by the applicant,

8. TRADING SCENARIOS

No trading scenarios were identified in the permit application, nor requested by the applicant.

9. COMPLIANCE PLAN

9.1 COMPLIANCE PLAN

Pursuant to the information submitted by the Basic American Foods Blackfoot facility in the June 2001 Tier I operating permit, the facility has not obtained PTCs for construction and/or modification of all emission sources at the facility in accordance with IDAPA 58.01.01.200 through 223. The Department and BAF have identified that portions of source Process C are not in compliance because permits to construct were not obtained prior to construction or modification. A Tier II operating permit application will be submitted and a Tier II operating permit issued to resolve the noncompliance issues.

In addition, the permittee has the continuing responsibility to submit any supplementary information needed, including information for any other sources, in accordance with IDAPA 58.01.01.315.

Because these sources have been constructed and/or modified without a permit, the Department has determined that the most appropriate course of action to bring the facility into compliance with the requirements is to issue a single facility-wide permit that:

(a) Specifically establishes the operating terms and conditions required by the PTC rules for sources for which a permit was required but not obtained; and

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(b) Collectively addresses the operating terms and conditions required to demonstrate that emissions from all sources at the facility will not contribute to the violation of an applicable standard.

The Department is, therefore, requiring a combined Tier II operating permit (Tier II) and PTC (hereafter referred to as the facility-wide permit). The Tier II for Basic American Foods Blackfoot facility is required in accordance with IDAPA 58.01.01.401.03 based on the determination that specific emission standards, or requirements on operation or maintenance are necessary to ensure compliance with any applicable emission standard or rule. The facility-wide permit will contain the terms and conditions necessary for the facility to comply with the applicable requirements of IDAPA 58.01.01.400 through 410.

The facility-wide permit will also include all of the terms and conditions for new or modified sources. For those sources within the facility that have existing PTCs, the terms and conditions will be incorporated into the new permit. For sources at the facility for which a PTC was required but not obtained, the permit will establish new emission limits, controls, and other requirements in accordance with the applicable portions of IDAPA 58.01.01.200 through 223. The new facility-wide permit will address all applicable emission standards, required emission control technology, and demonstrate that the facility will not cause or contribute to any ambient air quality standard or applicable prevention of significant deterioration (PSD) increment.

The combined Tier II and PTC is different than, and separate from, the Tier I in that the new permit will establish new applicable emission limits, controls, and other requirements that are as stringent as the requirements contained in or enforceable under the state implementation plan. This permit will create new underlying requirements for sources that are in existence at the time the initial Tier I is issued. A Tier I permit modification will, therefore, need to be issued concurrently with the issuance of the new facility-wide permit.

The applicable requirements established in the facility-wide permit pursuant to IDAPA 58.01.01.200 through 223 shall be clearly identified as such in the permit and shall remain in full force and effect until such time as they are modified or terminated in accordance with the procedures for issuing a PTC.

The specific compliance schedule elements and milestones to achieve compliance are described below.

Permit Condition 10.2. The permittee will be required to submit a complete permit application with all supporting information and documentation for issuance of a facility-wide permit in accordance with IDAPA 58.01.01.400 through 410 no later than 180 days from the final issuance date of the Tier I. A facility-wide permit is required by the Department to establish the terms and conditions necessary to comply with an applicable rule or standard. The Department shall consider the emissions from all sources at the facility and the specific requirements for individual sources in preparing the facility-wide operating permit.

The permit application shall clearly identify all emissions units at the facility, listing currently permitted emissions units, exempted units for which the facility maintains exemption documentation, units constructed before and not modified since January 24, 1969, and units constructed and/or modified since January 24, 1969 without a permit or construction approval from the Department. Application information shall provide facility information and emissions data for all emissions units in accordance with IDAPA 58.01.01.402 and 403 and shall include a demonstration that the sources at the facility will not cause or significantly contribute to a violation of the NAAQS or of any applicable PSD increment.

The application submittal deadlines have been set to reasonably accommodate updating and organizing the emissions unit descriptions and emissions data, and conducting ambient air quality modeling for all sources. Applications that are deemed or remain incomplete beyond the 180-day milestone shall constitute a violation of this permit condition.

Permit Condition 10.3. In addition to the information submitted under Permit Condition 10.2, the permittee is required to submit all of the information necessary to address the applicable requirements for PTCs in accordance with IDAPA 58.01.01.200 through 223 and the NSPS requirements in 40 CFR 60, Subpart KB

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for the construction and/or modification of sources for which the permittee was required but did not obtain a PTC. The information must include all information to address the additional permit requirements for new major facilities or major modifications where construction without enforceable limits may have triggered PSD or nonattainment NSR requirements.

This data must be submitted with the complete permit application required under Permit Condition 10.2 in order to issue a single combined permit. The information is, therefore, due no later than 180 days from the final issuance date of the Tier I. Failure to include complete information for addressing the PTC requirements within the required timeframe shall constitute a violation of this permit condition.

Permit Condition 10.4. If, through the development of the facility-wide permit, any other source or sources are identified that should have obtained a PTC or PTC modification and for which the applicant did not include the information under Permit Condition 10.3, a supplemental application that contains all of the information necessary to address the applicable requirements for PTCs in accordance with IDAPA 58.01.01.200 through 223 shall be submitted no later than 30 days after receiving written notification from the Department. Supplemental applications that are deemed or remain incomplete beyond the 30-day milestone shall constitute a violation of this permit condition.

Permit Condition 10.5. If the permittee can clearly demonstrate that the data required for the facility-wide permit cannot be collected and organized within the specified timeframe, the permit application submittal deadlines may be extended at the discretion of the Department for a specific time period not to exceed one year. For the Department to consider a request for an extension without jeopardizing the terms and conditions of the permit, the request must be submitted by the facility no later than the midpoint of the compliance milestone timeline. The request must be submitted in writing with a clear demonstration why the data cannot reasonably be submitted within the specified timeframe. An example of information that might justify an extension is the absence of ambient monitoring data required to complete a PSD application.

The Department will review the request and the justification and approve or disapprove the extension in writing. The responsibility for meeting the schedule if the Department has not issued a written extension belongs to the permittee.

Permit Condition 10.6. The Department intends to draft and issue a single facility-wide permit to bring the permittee back into compliance. This permit will fully meet all of the applicable requirements in the *Rules* and the federally approved state implementation plan. Because the permit will contain both elements of PTCs and of Tier II permits, it will clearly identify the origin and basis for each term and condition. The terms and conditions established pursuant to the PTC requirements shall be clearly marked and shall not expire with any Tier II operating permit term. The terms and conditions established pursuant to the Tier II requirements shall be clearly marked and shall be implemented in accordance with the Tier II process. The procedures for issuing a PTC in IDAPA 58.01.01.209 shall be followed concurrently with the procedures for issuing a Tier II in IDAPA 58.01.01.404. The permit shall clearly state that any future modification of a term or condition in the permit shall be subject to the appropriate procedural requirements on which the original term or condition was based.

Permit Condition 10.7. Within 30 days after the Department determines the facility-wide permit application complete, the permittee will need to request a significant permit modification to the Tier I in accordance with IDAPA 58.01.01.382.02. A significant Tier I modification will require the payment of fees in accordance with IDAPA 58.01.01.389.06.b.iii. Because the information in a complete application as required under Permit Condition 10.2 and 10.3 should contain all of the technical information necessary to modify the Tier I, the Department may waive portions of the standard application requirements as appropriate provided the permittee certifies the completeness, truth, and accuracy of all documents submitted.

The Tier I modification shall be processed concurrently with the facility-wide permit in accordance with the procedures for issuing a Tier I in IDAPA 58.01.01.360 through 369.

Permit Condition 10.8. The permittee shall be required to submit a progress report at the end of each calendar quarter (January 1, April 1, July 1, and October 1) of each year stating when each of the conditions

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of each milestone were or will be achieved. A detailed explanation is required when milestones were not or will not be achieved in accordance with the schedule.

Permit Condition 10.9. The incorporation of the compliance schedule into the Tier I operating permit does not sanction noncompliance with the applicable rules.

10. AIRS DATABASE

AIRS/AFS FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N - Nonattainment
SO₂	В					В	U
NOx	A		Α			Α	U
СО	A					Α	U
PM ₁₀	А			W. A.	rum militar in Sept.	Α	U
PT (Particulate)	Α					Α	U
voc	В					В	U
THAP (Total HAPs)	В					В	U
3.4	3.4		APPLICABLE SUBPART				
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AIRS/AFS CLASSIFICATION CODES:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

11. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees in accordance with IDAPA 58.01.01.387.

12. RECOMMENDATION

Based on the Tier I application and review of the federal regulations and state rules, staff recommends that DEQ issue final Tier I operating permit No. 011-00012 to BAF for their Blackfoot facility.

cc: Sherry Davis, Air Quality Division

Rick Elkins, Pocatello Regional Office

Laurie Kral, EPA Region 10

SC/BR/sd

T1-010909

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Appendix

Process Weight Emissions

BAF Blackfoot Facility Process Weight Calculations

Process ID	Max Hourly Process Weight Rate, 000 lbs/hr	Max Hourly Emissions	Allowable Emissions, Old PW Formula	Allowable Emissions, New PW Formula
Process A				
	25.00	14.94	17.24	
Process B	_/			
'	50.00	18.80	20.79	
Process C				
	269.60	22.26		25.07

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